

REMARKS

This Amendment is responsive to the Office Action mailed on January 14, 2004. Claims 1-34 are in the application. This Amendment addresses each of the objections and rejections posed by the Examiner. Accordingly, reconsideration is respectfully requested.

Claims 1-19, 22, and 26-28 were rejected.

Claims 20-25 were objected to, but considered allowable if redrafted to include base and intervening claim recitations.

Claims 19-24 were allowed.

Claim Rejections – 35 U.S.C. § 102

Claims 1, 2, 6-10, 12, 13, 15, 16, and 26-28 were rejected by the Examiner under 35 U.S.C. 102(b) as being anticipated by Mann et al. (US 4,082,097) (“Mann” hereinafter).

By way of background, Mann teaches of rechargeable battery implanted in human tissue using a single cell battery and an external power source. In Mann’s Figure 1, there is shown only and described only one nickel-cadmium cell (See Col. 4, lines 3-5). In addition, the resistor taught in Mann is a high-resistance bypass resistor in parallel with a series switch, where the purpose of the resistor is to allow a trickle current to flow to the battery even if the switch is open (See Col. 5, lines 3-24).

Whereas, Applicant's invention relates to an apparatus and method for balanced charging of a multiple-cell battery within human tissue. Claim 1 as amended now recites the element of "a plurality cells arranged in series" in a battery pack. Mann does not teach or suggest using a plurality of series arranged cells. Rather, Mann teaches use with a single cell battery.

In addition, in Applicant's invention, claim 1 recites using a "bypass resistor in series." As described by applicant, the bypass resistor has a relatively low resistance and the purpose of the resistor is to route the charge current around the cell to the other cells in the pack. Mann does not teach or suggest of using a low resistance bypass resistor in series. Rather, Mann teaches using a high resistance bypass resistor in parallel.

Additionally, independent method claim 15 teaches both the use of "a plurality of cells arranged in series" in a battery pack and "bypass resistor in series." By applying the same reasoning applicable to claim 1, namely that "a plurality of cells arranged in series" in a battery pack and "bypass resistor in series" are not anticipated by Mann because Mann uses a single cell and a high-resistance bypass resistor in parallel.

For a claim to be anticipated under Section 102, it must recite each and every element of the reference. Mann does not teach of the aforementioned battery pack having a plurality of cells arranged in series, or the aforementioned low resistance "bypass resistor in series". Accordingly, claims 1 and 15 should be allowable over Mann. In addition, dependent claims 2, 6-10, 12, 13, 16, and 26-28 should now be allowable as a dependent on allowable base claims.

Claim Rejections – 35 U.S.C. § 103

Dependent claims 3-5 and 17-19 were rejected by the Examiner under 35 U.S.C. 103(a) as being anticipated by Mann in view of Bourbeau (US 5,666,040) (“Bourbeau” hereinafter).

By way of background, Bourbeau teaches of a battery monitor and control system using a voltage divider to balance the cells. Bourbeau’s method for balancing the cells requires the system to reduce the charge current and/or place a load across the battery while balancing, whereas Applicant’s invention maintains the full charge current while balancing. (Bourbeau Col. 13, line 5-55 – “monostable time out”)

One of ordinary skill would not be motivated to combine Mann and Bourbeau because applying the voltage divider in Bourbeau would not be practical to the single cell system in Mann. The concepts, rather are mutually exclusive. Even if combined, they would not produce applicant’s claimed invention, as they would only teach of a single cell control system for use within human tissue. This does not approach the recitation of applicant's claims.

Dependent claims 11, 14, and 22 were rejected by the Examiner under 35 U.S.C. 103(a) as being anticipated by Mann in view of Ostergaard et al. (US 5,994,878) (Ostergaard “hereinafter”).

By way of background, Ostergaard teaches of a method for recharging a battery. Ostergaard’s uses lithium ion-type cells.

If one were to combine the teachings of Mann and Ostergaard as suggested by the Examiner, they only teach collectively a rechargeable single-cell lithium-ion type cell in contrast to Applicant's multi-cell battery pack with a cell-balancing circuit.

Accordingly claims 3-5, 11, 14, 17-19, and 22 are believed to be in condition for allowance as not anticipated or made obvious over the prior art, in addition to their above-described dependence on now-allowable base claims.

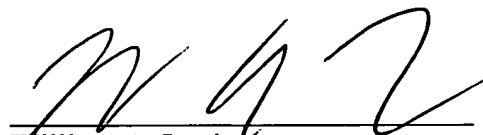
Applicant has reviewed the other prior art of record and applied, and does not believe that this prior art taken alone or in various combinations, either anticipates or makes obvious the claims as amended.

Accordingly, the application should be in condition for allowance with each of the Examiner's rejections and objections being addressed or traversed. Applicants therefore respectfully request to the Examiner to issue a Notice of Allowance at the earliest possible date.

Applicants earnestly solicit the Examiner to contact the undersigned by telephone call to advance the prosecution in any respect.

Please charge any additional fee occasioned by this paper to our Deposit Account
No. 03-1237.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'W A L', is written over a horizontal line.

William A. Loginov

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